



Postdoctoral Researcher - UCN

[TRIUMF](#) is Canada's particle accelerator centre, and one of the world's leading laboratories for particle and nuclear physics and accelerator-based science. We are an international centre for discovery and innovation, advancing fundamental, applied, and interdisciplinary research for science, medicine, and business.

At TRIUMF, we're passionate about accelerating discovery and innovation to improve lives and build a better world. Equity, diversity, and inclusion are integral to excellence and enhance our ability to create knowledge and opportunity for all. Together, we are committed to building an inclusive culture that encourages, supports, and celebrates the voices of our employees, students, partners, and the people and communities we serve.

We are currently installing the new ultracold neutron (UCN) source upgrade and are designing and developing a new experiment to measure the neutron's electric dipole moment (EDM) as the flagship experiment for the source. These projects involve cutting-edge science with state-of-the-art techniques. The combination of a spallation neutron source with a cryogenic system to produce UCN based on neutron downscattering in superfluid helium provides unique world-leading potential and engaging scientific and technical challenges.

The [TRIUMF Ultra-Cold Advanced Neutron \(TUCAN\)](#) collaboration is currently accepting applications for a Postdoctoral Researcher at TRIUMF. The successful candidate will contribute to the development, commissioning and experiments with the TRIUMF Ultra-Cold Advanced Neutron (TUCAN) source and to the development, data-taking and analysis of the experiment to measure the electric dipole moment of the neutron (nEDM). The candidate's primary role is to significantly contribute to the completion and installation of the new UCN source and facility. Your other responsibilities include, but are not limited to:

- Developing first experiments using the source, conducting and analysing them is also part of the basic function
- Playing a key role in installation, commissioning and first experiments with the next-generation UCN source at TRIUMF including data analysis and simulations
- Significantly contribute to the central region of the TUCAN EDM experiment, the EDM cells, vacuum chamber and electric field system
- Contributing to and participating in other experiments and projects of the UCN group at TRIUMF
- Disseminating results as articles in scientific journals and at national and international conferences and workshops
- Contributing to the supervision of undergraduate and/or graduate students

The position might require the incumbent to be trained and designated as a TRIUMF Nuclear Energy Worker. This is optional and will be evaluated based on the evolution of the project.

As our ideal candidate, you will have strong communication skills, high attention to detail, creativity and flexibility to address challenging problems. Your other qualifications include:

- Knowledge of UCN and/or EDM related physics research, and several years of graduate level hardware experience in one or more of the following areas: detector, beam line, cold/ultracold neutrons, magnetic and electric fields, and data acquisition development
- A recent Ph.D. in nuclear, particle, atomic, or accelerator physics. Individuals who are expecting to complete a PhD within the next few months are also encouraged to apply

This grant funded position will be based at TRIUMF and the term of employment will be based on an initial commitment of a one year term. This will be renewed annually for a second and third term, based on mutual satisfaction and continued grant funding. Salary will be competitive depending on experience.

TRIUMF is located on the south campus of the University of British Columbia, in the heart of Pacific Spirit Park in Vancouver, BC. We offer a competitive total compensation package, including comprehensive benefits, attractive salary, and an excellent opportunity to enhance your career portfolio in a high profile national research facility.

Learn more about how the amazing research and work we do at TRIUMF impacts humanity <https://www.rarestdrug.com/>

TRIUMF is an equal opportunity employer, and we welcome applications from all qualified candidates. Your application package must be submitted by email to recruiting@triumf.ca. To be accepted for consideration applications must be complete, and must include the following in one PDF file:

- Subject line: 861
- [Employment Application Form](#)
- Cover letter
- Brief statement of research interests
- Detailed CV with a list of publications
- Arrange for at least 3 letters of recommendation or reference to be sent directly to recruiting@triumf.ca including Competition 861 in the subject line

Application closing date: November 9, 2021

It is important to note that due to operation necessity, TRIUMF will as needed, make hiring decisions that could pre-empt the application closing date. Accordingly, we suggest candidates submit expressions of interest in a timely fashion.